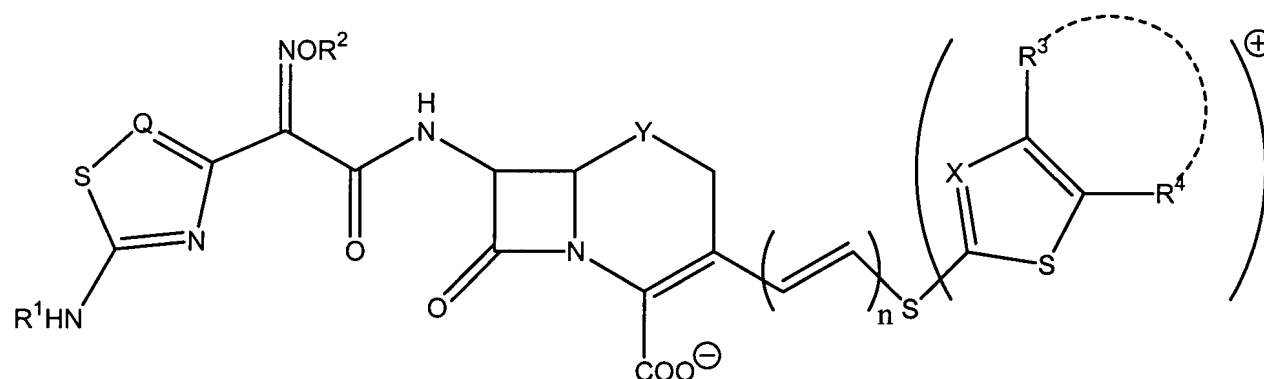


or prevention of infectious diseases caused by these bacteria. [And] **Additionally**, the compound (I) has a relatively high solubility in water, and can be advantageously used [as] **for** injection.

### **In the Claims**

1. (AMENDED) A compound of the formula:



wherein R<sup>1</sup> is [a **phosphono group or a group convertible to a phosphono group;**

phosphono, dialkoxy-phosphoryl, O-alkyl-phosphono, diaminophosphoryl,

(amino)(hydroxy)phosphoryl, (alkoxy)(morpholino)phosphoryl or

dihalophosphoryl;

R<sup>2</sup> is a hydrogen atom, an optionally substituted C<sub>1-6</sub> alkyl group or a C<sub>3-5</sub> cycloalkyl

group; [or a group having a linkage through a carbon atom;]

each of Q and X is a nitrogen atom or CH;

Y is S[, O or CH<sub>2</sub>];

n is 0 or 1;

one of R<sup>3</sup> and R<sup>4</sup> is a pyridinium group which may be substituted and the other is a

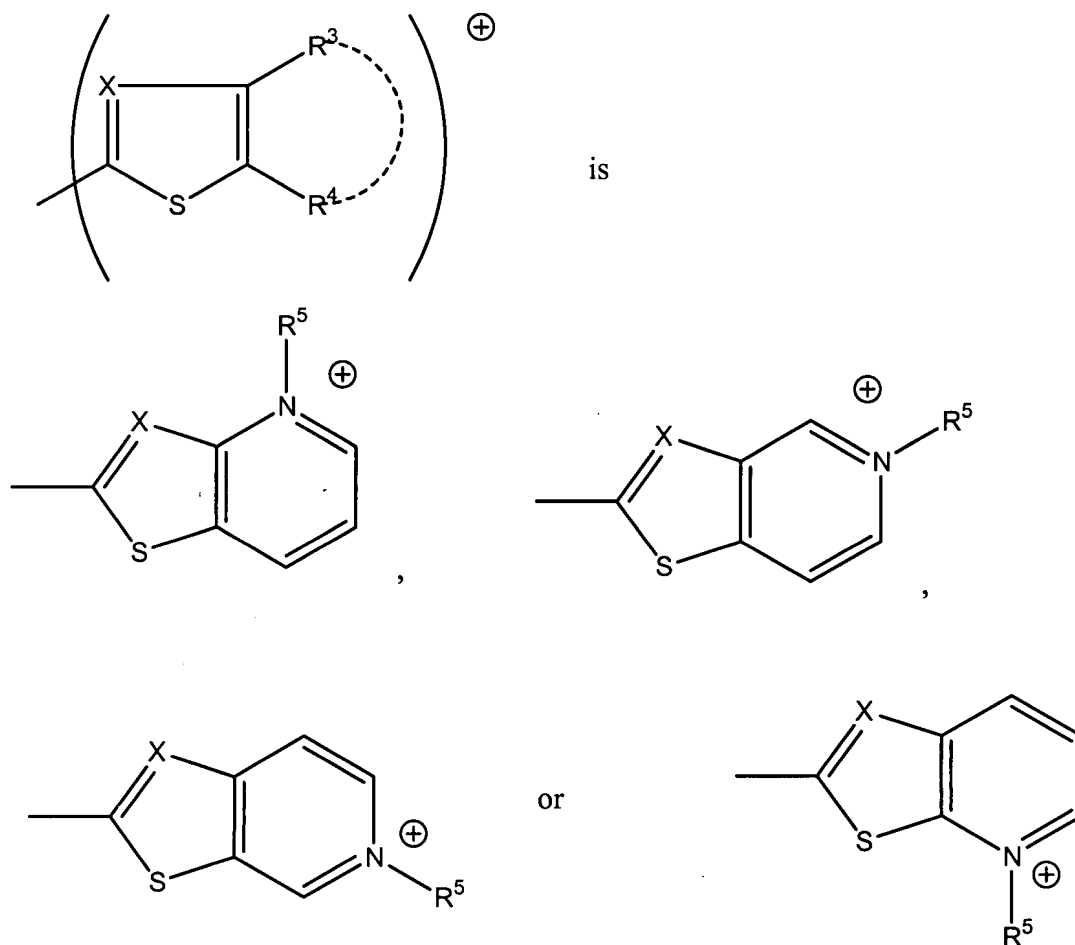
hydrogen atom or a hydrocarbon group which may be substituted, or R<sup>3</sup> and R<sup>4</sup>

taken together may form a [quaternalized] **quaternized** nitrogen-containing

B

heterocyclic ring which may be substituted,

wherein when  $R^3$  and  $R^4$  are taken together, the group of the formula



wherein  $R^5$  is an optionally substituted hydrocarbon group;

salt or ester thereof.

12. (TWICE AMENDED) [A compound as claimed in claim 1, which is] 7 $\beta$ -[2(Z)-ethoxyimino-2-(5-phosphonoamino-1,2,4-thiadiazole-3-yl)acetamido]-3-[4-(1-methyl-4-pyridinio)-2-thiazolylthio]-3-cephem-4-carboxylate, its ester or its salt.

21. (TWICE AMENDED) A method [of using the compound as claimed in claim 1] for